

WE CLAIM:

1. An armrest adjustment mechanism for use with a vehicle seat defining a lateral seat axis and an armrest member defining a longitudinal axis, said mechanism comprising:
  - (a) a mounting means for pivotally mounting said armrest member on said vehicle seat for selective pivotal rotation about said lateral seat axis between a deployed design configuration, wherein said longitudinal axis has a substantially horizontal orientation, and a raised stowed configuration, wherein said longitudinal axis has a substantially vertical orientation; and
  - (b) a lateral translation means for positive inward displacement of said armrest member along said lateral seat axis relative to said vehicle seat as said armrest member is selectively rotated as aforesaid from said deployed design configuration towards said raised stowed configuration.
2. An armrest adjustment mechanism according to claim 1, wherein said mounting means comprises a male pivot pin pivotally engaging a complementary female pivot bearing for pivotal rotation of said pivot bearing about a pivot axis defined by said pivot pin, said pivot pin being rigidly mounted on said vehicle seat, with said pivot axis in

substantially coaxial relation to said lateral seat axis, and with said pivot bearing being rigidly mounted on said armrest member.

3. An armrest adjustment mechanism according to claim 2, wherein said lateral translation means comprises a spiral screw-thread extending axially around said pivot pin so as to threadingly engage a complementary threaded segment formed on said pivot bearing.
4. An armrest adjustment mechanism according to claim 3, wherein said inward displacement of said armrest member is progressively coincident with selective rotation of said armrest member about said lateral seat axis from said deployed design configuration towards said raised stowed configuration as aforesaid.
5. An armrest adjustment mechanism according to claim 4, further comprising a stop means for preventing rotation of said armrest member beyond said deployed design configuration, said stop means being rigidly attached to said vehicle seat, and with said stop means operatively engaging said armrest member in said deployed design configuration.

6. An armrest adjustment mechanism according to claim 5, wherein said stop means comprises a guide pin rigidly attached to said vehicle seat and adapted to operatively engage in abutting relation said armrest member in said deployed design configuration.
7. An armrest adjustment mechanism according to claim 6, wherein said guide pin comprises a fixed segment rigidly attached to said vehicle seat, and an extension segment operatively engaging in abutting relation said armrest member in said deployed design configuration, said extension segment securely engaging said fixed segment in selectively removable relation, wherein removal of said extension segment from said fixed segment allows selective rotation of said armrest member beyond said deployed design configuration.
8. An armrest adjustment mechanism according to claim 7, wherein removal of said extension segment from said fixed segment allows subsequent selective removal of said pivot bearing with said armrest member from said pivot pin.
9. An armrest adjustment mechanism according to claim 8, wherein said guide pin is adapted for movement within an arcuate guide slot formed in said armrest member as said armrest member is selectively rotated as aforesaid from

said deployed design configuration towards said raised stowed configuration.

10. An armrest adjustment mechanism according to claim 9, wherein said arcuate guide slot has a first blind end and a second blind end, and wherein said extension segment of said guide pin operatively engages in abutting relation said first blind end in said deployed design configuration.
11. An armrest adjustment mechanism according to claim 10, wherein said guide pin operatively engages in abutting relation said second blind end in said raised stowed configuration.
12. An armrest adjustment mechanism according to claim 11, wherein said fixed segment of said guide pin operatively engages in abutting relation said second blind end in said raised stowed configuration.
13. An armrest adjustment mechanism according to claim 12, wherein said pivot bearing is rigidly mounted on an armrest mounting plate that is rigidly mounted on said armrest member.

14. An armrest adjustment mechanism according to claim 13, wherein said arcuate guide slot is further formed in said armrest mounting plate.
15. An armrest adjustment mechanism according to claim 14, wherein said pivot pin and said fixed segment are each respectively rigidly mounted on a pivot support plate that is rigidly mounted on said vehicle seat.
16. A method of assembling an armrest adjustment mechanism for use with a vehicle seat defining a lateral seat axis and an armrest member defining a longitudinal axis, said method comprising the steps of:
  - (a) rigidly mounting a male pivot pin on said vehicle seat in substantially coaxial relation with said lateral seat axis and having a spiral screw-thread extending axially therearound;
  - (b) rigidly mounting a complementary female pivot bearing on said armrest member, said pivot bearing having a complementary threaded segment formed thereon;
  - (c) winding said complementary threaded segment of said pivot bearing on to said spiral screw-thread of said pivot pin, in a first inward pivoting direction about said lateral seat axis, from an initial assembly configuration of said armrest member, wherein said

spiral screw thread is initially aligned with said complementary threaded segment;

(d) pivotally rotating said armrest member relative to said vehicle seat in said first inward pivoting direction beyond a deployed design configuration, wherein said longitudinal axis has a substantially horizontal orientation; and

(e) rigidly mounting a stop means on said vehicle seat for preventing opposite rotation of said armrest member in a second outward pivoting direction beyond said deployed design configuration, with said stop means operatively engaging said armrest member in said deployed design configuration;

such that said armrest member is selectively pivotally rotatable on said vehicle seat about said lateral seat axis between said deployed design configuration, wherein as aforesaid said longitudinal axis has said substantially horizontal orientation, and a raised stowed configuration, wherein said longitudinal axis has a substantially vertical orientation.

17. A method of assembling an armrest adjustment mechanism according to claim 16, wherein said stop means in step (e) comprises a fixed segment and an extension segment, and wherein, before step (c), said method further comprises an additional step of:

(b.1) rigidly mounting said fixed segment on said vehicle seat, with said fixed segment adapted to permit rotation of said armrest member from said initial assembly configuration in said first inward pivoting direction beyond said deployed design configuration towards said raised stowed configuration;

and wherein, in step (e), said extension segment is rigidly mounted on said fixed segment, with said extension segment operatively engaging in abutting relation said armrest member in said deployed design configuration.

18. A method of assembling an armrest adjustment mechanism according to claim 17, wherein, in step (e), said extension segment is rigidly mounted on said fixed segment in selectively removable relation.

19. A method of assembling an armrest adjustment mechanism according to claim 18, further comprising before step (c) a still additional step of:

(b.2) forming an arcuate guide slot in said armrest member, with said arcuate guide slot adapted to receive said extension segment in said deployed design configuration, and to receive said fixed segment in said raised stowed configuration.

20. A method of assembling an armrest adjustment mechanism according to claim 19, wherein in step (b.2) said arcuate guide slot has a first blind end that operatively engages said extension segment in abutting relation in said deployed design configuration.
21. A method of assembling an armrest adjustment mechanism according to claim 20, wherein in step (b.2) said arcuate guide slot has a second blind end that operatively engages said fixed segment in abutting relation in said raised stowed configuration.